

**METHOD AND APPARATUS FOR IMPLEMENTING REDUNDANCY
ENHANCED DIFFERENTIAL SIGNAL INTERFACE**

Abstract of the Disclosure

- 5 A method and apparatus are provided for implementing a redundancy enhanced differential signal interface. A differential signaling I/O pair is coupled to a differential receiver interface. The differential receiver interface includes a pair of multiplexers coupled to a differential receiver. An error detecting mechanism is coupled to the differential receiver for detecting an error. When an error is detected, an interface operating speed is reduced.
- 10 True and complement sides of a differential signaling I/O pair are alternately tested by first enabling a multiplexer control of one of the multiplexers, reading data, and checking for the error; then enabling a multiplexer control of the other multiplexer, reading data, and checking for the error.
- 15 Responsive to detecting a failure of a true side or a complement side, the detected failed true side or complement side is set to a reference voltage and the reduced interface operating speed is maintained for continued operation.